

ABSTRACT OF THE DISCLOSURE

A straddled gate device, and a method of producing such device, formed on a semiconductor-on-insulator (SOI) substrate having active regions defined by isolation regions and an insulator layer. The device includes a first gate defining a first channel region interposed between a source and a drain formed within the active region of the SOI substrate. Additionally, the device includes a second gate straddling the first gate defining second channel regions interposed between the first channel region and the source and the drain. Further still, the device includes a contact connecting the first gate with the second gate wherein when the device is in the off state (I_{off}) the first channel region and second channel regions define a long channel and when the device is in the on state (I_{on}) the first channel region defines a short channel.

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